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(54) **Interrupteur différentiel de protection contre les courants de défaut et les surtensions**

Differenzstromschalter zum Schutz gegen Fehlerströme und Überspannungen

Differential circuit breaker for protection against fault currents and overvoltages

(84) Etats contractants désignés:  
AT BE DE ES FR IT PT

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(56) Documents cités:  
EP-A- 0 295 415 FR-A- 1 327 912  
FR-A- 2 470 466 US-A- 4 068 276

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Title: **EP0614259B1: Differential circuit breaker for protection against fault currents and overvoltages** [\[German\]](#) [\[French\]](#)

Derwent Title: Differential circuit breaker with overcurrent and overvoltage protection - uses conventional current trip with overvoltage detector acting on overcurrent trip, and has delay on overvoltage detector [\[Derwent Record\]](#)

Country: EP European Patent Office (EPO)

Kind: B1 Patent (See also: [EP0614259A1](#))

Inventor: Hugel, Philippe;

Assignee: SERD Société d'Etude et de Réalisation de Disjoncteurs  
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Published / Filed: 1998-07-29 / 1994-03-03

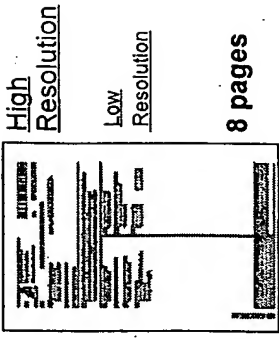
Application Number: EP1994000400457

IPC Code: H02H 3/33; H02H 3/20;

ECLA Code: H02H3/20; H02H3/33;

Priority Number: 1993-03- FR1993000002574

Abstract: [From equivalent EP0614259A1] This differential circuit breaker is of the type including an integrating current transformer and a trigger circuit with, on the one hand, a first electronic switch which, actuated by the fault current appearing in the integrating current transformer, controls, when it is switched, a trip switch which cuts off at least one phase of the mains and, on the other hand, a circuit (2) for sensing an overvoltage, connected to the trigger circuit (7) in



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such a way that this circuit (2), in the event of an overvoltage appearing, actuates the first electronic circuit breaker (14), and, consequently, the trip switch (8), and it is characterised in that, a delay element (17) generating a triggering delay being provided, the circuit for sensing an overvoltage (2) is mounted in parallel with this time-delay element (17).

Attorney, Agent or Firm: **CABINET BONNET-THIRION** ;

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Description

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AT BE DE ES FR IT PT

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L'invention concerne d'une manière générale les interrupteurs différentiels du genre comportant un transformateur de courant totalisateur et un circuit de déclenchement et dans lesquels un premier interrupteur électronique, actionné par le courant de défaut apparaissant dans le transformateur de courant totalisateur, commande, lors de sa commutation, un déclencheur qui coupe au moins une phase du réseau.

First Claim:



1. A differential protective switch of the kind comprising a summing current transformer and a tripping circuit and in which on the one hand a first electronic switch actuated by the fault current appearing in the summing current transformer controls upon switching thereof a trip device (8) which cuts at least one phase of the network and on the other hand a circuit (2) for detecting an overvoltage is connected to the tripping circuit (7) in such a way that in the event of an overvoltage occurring the circuit (2) actuates the first electronic switch (14) and consequently the trip device (8), characterised in that, a time delay member (17) for producing a tripping time delay being provided; and thus being a selective switch which involves an inherent current, the circuit (2) for detecting an overvoltage is connected at the output in parallel to said time delay member (17) to deliver the supply power necessary to the trip device (8), and that said time delay member (17) is a power accumulator.

[German] [French]

Forward

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References:

PDF	Patent	Pub.Date	Inventor	Assignee	Title
	DE19514641C2	1997-08-21	Flohr, Peter, Dipl.-	Heinrich Kopp AG, 63796 Kahl,	Fehlerstromschutzschalter
	DE19514641A1	1996-10-24	Flohr, Peter, Dipl.-	Heinrich Kopp AG, 63796 Kahl,	Fehlerstromschutzschalter

Other Abstract: [DERABS G94-273235](#)

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